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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,985	11/20/2003	Haruhisa Taniguchi	ADI-097	8149
51414	7590	01/26/2006	EXAMINER	
GOODWIN PROCTER LLP PATENT ADMINISTRATOR EXCHANGE PLACE BOSTON, MA 02109-2881			MUSSEY, BARBARA J	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,985	Applicant(s) TANIGUCHI ET AL.	
	Examiner Barbara J. Musser	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-23 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 9, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 1-265979.

JP 1-265979 discloses forming a ball by forming a bottom layer(panel, 7) and forming a top layer(protective layer, 8). Since the bottom layer is injection molded against the top layer, it is connected to it. Since the layers are intended to be attached to the surface of a ball, they substantially correspond to a section of the surface of the ball. The top layer is shown having a convex curvature(Figure 4) and since the bottom layer is injection molded against it, the bottom layer is also considered to have a generally convex curvature as one side of it is convex. It is noted that the claims do not require any order to the steps, such that the claims do not require the bottom layer and top layer to be convex prior to their connection with each other. Moreover the claims fail to define over a layer wherein on the surfaces of a layer is convex while the other is not.

Regarding claim 11, the top and bottom layers are connected via an adhesive(17).

Regarding claim 12, since the bottom layer is formed by injection molding against the top layer, it would be substantially free of stress at the bond line since the bottom layer was fluid when the bonding occurred.

Regarding claim 30, JP 1-265979 discloses the ball is made of rubber, an elastic material.(Oral translation.)

3. Claims 1, 8, 9, 18, 19, 22, 23, 25, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ou(U.S. Patent 6,206,795).

Ou '795 discloses forming a panel for a basketball by bonding together a foam layer and cover layer, both layers corresponding substantially to a section of the surface of the ball.(Figure 4) The panel is convex.(Figures 7A and 7B) particularly since the reference describes Figures 7A-7D as sectional views of the panels and showing a curved panel when the panel was not curved would show a distorted sectional view, undermining the purpose of showing a cross-section, i.e. to show the relationship between elements.

Regarding claim 8, Ou '795 discloses the layers are bonded together, indicating they are formed independently of one another.(Col. 3, ll. 58-59)

Regarding claim 9, Ou '795 discloses the two layers are substantially the same size.(Figure 4)

Regarding claims 18 and 19, Ou '795 discloses the foam layer can be polyurethane or ethylene vinyl acetate.(Col. 3, ll. 36-38)

Regarding claims 22 and 23, Ou '795 discloses attaching a lining cloth to the inner surface of the foam layer.(Figure 4; Col. 3, ll. 64)

Regarding claims 25 and 29-31, the edges of the panels are interconnected to form a cover for the ball.(Figures 2 and 4) It is noted that the claim does not require the edges of the panels to contact each other.

Regarding claim 29, since the cover layers are preforms, they are self-supporting structures.

Regarding claim 30, the bladder is made of rubber.(Col. 3, ll. 1-3)

Regarding claim 31, since the panels have a stronger curvature than the ball to which they are applied(Figure 4), they have a radius of curvature while not under load which is less than the radius of curvature of the ball when inflated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5 above, and further in view of Giesen et al.(U.S. Patent 5,624,517).

The reference discloses as taught above but does not disclose forming the cover layer by forming it on the three-dimensional foam layer. Giesen et al. discloses deep drawing a film to form it against a foam layer.(Figure 3; Col. 2, ll. 4-17) This forms a three-dimensional film bonded to a configured foam layer wherein the foam layer

already has its final shape prior to application of the film. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cover layer of Ou '795 on the foam layer by deep-drawing the cover layer onto the foam layer as shown by Giesen et al. since it is often difficult to apply adhesive uniformly and homogeneously and this process avoids this drawback(Col. 1, ll. 30-35, 38-40) and for the foam layer to be preshaped to its final convex form prior to application of the film since this is how the process of Giesen et al. suggests the process be performed.

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5 and further in view of Boutle(U.S. Patent 4,157,424) and GB 1,095,969.

Ou '795 discloses the cover layer can be an artificial leather such as polyurethane.(Col. 2, ll. 252-6) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made that the polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

7. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 in paragraph 5.

Ou '795 discloses as stated above, but does not explicitly state the foam is vulcanized prior to bonding. However, one in the art would appreciate that since the foam is a preform prior to bonding, it would have been obvious to vulcanize it prior to bonding so that only the foam layer would be subjected to the high heat necessary for vulcanization. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vulcanize the foam layer prior to bonding it to the cover layer so that the cover layer would not be subjected to the high temperatures necessary for vulcanization.

Regarding claim 21, while the foam layer can be considered the second material, the lining cloth can alternatively be considered the second layer since it is connected to the cover layer via the intervening foam layer. The lining cloth is made of fabric, and fabric is conventionally considered to be a mesh since it has openings through which small particles and air can travel.

8. Claims 5, 10, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claims 1 and 25 in paragraph 4 above.

The reference discloses as stated above, but does not explicitly state how the top layer is pressed against the mold surface as shown in Figure 5. However, it is well-known and conventional in the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to deep draw or vacuum form the top layer in Figure 5 since it is well-known and conventional in

the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed.

Regarding claim 26, while JP 1-265979 does not explicitly disclose using an adhesive to bond the panels to the ball, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive to bond the panels to the ball since the use of adhesives to bond materials together is extremely well-known and conventional in the bonding arts.

Regarding claim 27, a thread layer(11) and a lining(10) are located between the panels and the ball. One in the art would appreciate that such materials would act as a reinforcing layer.

9. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claim 1 in paragraph 4 above, and further in view of Ou '795, Boutle, and GB 1,095,969.

The reference discloses as stated above, but does not disclose the material the cover layer is made of. Ou '795 discloses that cover layers are conventionally made of artificial leather to look like real leather(Col. 2, ll. 25-26) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cover layer of JP 1-265979 of a material used to make artificial leather since Ou '795 discloses artificial leather is conventionally used to cover

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game balls and that the polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

Regarding claim 15, while JP 1-265979 does not disclose the cover layer is transparent, the printing(5) is located beneath the cover layer and one in the art would appreciate that in order for the printing to be seen, the cover layer would need to be transparent. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the cover layer of JP 1-265979 transparent so that the printing could be seen.

Regarding claim 16, the printing is on the inside of the cover layer(Figure 6). Since the cover layer is clearly cut between Figure 5 and Figure 2, one in the art would appreciate that the cover layer is cut into a desired shape.

Regarding claim 17, while JP 1-265979 does not disclose precisely how the printing is applied to the cover layer, a well-known and conventional method of applying a pattern is by depositing the imaging material on the surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the pattern on the surface of the cover material by depositing the imaging material on the surface since this is a well-known ad conventional method of applying an image to a surface.

Response to Arguments

10. Applicant's arguments filed 11/10/05 have been fully considered but they are not persuasive.

Regarding applicant's argument that Ou '795 does not disclose panels with a convex curvature, Figures 7A-7D clearly show a convex curvature. While proportions of features of the drawings are not evidence of actual proportions when the drawings are not to scale, the drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art. (*In re Aslanian*, 590 F.2d 911, 200 USPQ 500 (CCPA 1979) One of ordinary skill in the art could clearly see the drawings show curved panels. Additionally, the reference discloses the figures are "sectional views". (Col. 2, ll. 55-62) Since they are cross-sections of the panels, one in the art would appreciate that distortions in them, such as showing them curved when they are not curved, would distort the cross-section that the drawing is intended to show.

Regarding applicant's argument that the Ou '795 does not disclose whether the panels are depicted before or after attachment to the ball, since they are part of a sectional view, one in the art would appreciate that if the panels were already attached to the ball, the sectional view would include the remainder of the ball as in Figure 6 which is also described as a sectional view. Additionally, Ou '795 clearly describes Figures 7A-7D as sectional views of the panels, not of the basketball as used to describe the sectional views of Figure 5 which shows the panels separate from the ball. This clearly suggests these are the panels before they are part of the final ball.

Regarding applicant's argument that Ou '795 discloses the panels are structured as the prior art panels and the prior art panels are flat, the reference discloses the cover material can be structured(formed) to have the same thickness as a standard panel. This does not indicate the panel formed is flat.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJM



SAM CHUAN YAO
PRIMARY EXAMINER